GOVERNMENT SUPPORT OF THE AMERICAN MERCHANT MARINE FOR MORE THAN NATIONAL DEFENSE

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This study examines the role which the American Merchant Marine plays in our national economy and its contribution to the economic welfare of the country. This study will further examine the merchant marine as a potential defense force, its present defense capabilities, and the government programs and legislation designed to support it. The present government assistance program is determined inadequate to meet the nation's need for a merchant marine of modern, efficient and competitive vessels; and a program aimed at making the shipping industry self-supporting through research and development, increased efficiency incentives, and improved labor-management relations is advocated.

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INTRODUCTION

One of the most important factors to be considered in measuring the economic capability of any nation is its ability to carry on foreign commerce and international trade. Throughout history, the most powerful and influential governments have been those which develop their trade potentials and foster policies designed to improve their national positions on the markets of the world. The United States, as the leader in world trade, has a direct interest, therefore, in ocean shipping which carries out our trading functions by moving goods and materials in international as well as domestic waters.

The natural harbors along the North American coastlines, an extensive internal transportation system, and the superior technological skills of the American people would seem to indicate a favorable atmosphere for the presence of a large and highly competitive national merchant fleet to support such a trade. Such is not the case. To preserve the American flag on the high seas since the turn of the century has required considerable assistance on the part of the federal government. This has been due to the higher costs of operating and building American ships as compared to the costs of operating similar vessels under foreign flags or building them in foreign shipyards.

Government support of the American Merchant Marine and the related ship building industry has been deemed essential for two reasons. First, in the normal conduct of world trade and foreign commerce, an American-flag fleet ensures the independence of our international commerce from unwarranted influence of foreign interests, and guarantees us access to <u>all</u> of the world market. It provides the United

States national self-sufficiency in ocean transportation, a most important factor in our present political-economic conflict. Second, is our national requirements for a fleet of modern ships ready and suitable to meet the demands of a national emergency. During periods of relative tranquility or small localized conflicts, such as that presently in Viet Nam, operating ships of all countries are readily available to carry the bulk of raw materials and finished products in support of international commerce. However, at the first signs of increased world tension or the actual outbreak of hostilities, augmented demands are placed in the existing fleets and premium rates must be paid for the available cargo space which becomes practically non-existant to any nation that does not have a merchant fleet of its own of sufficient quantity and quality to which it can turn. The quantity and quality of ships and personnel immediately available in the event of any emergency are the same as those employed in the pursuit of the world's normal peacetime commerce.

The United States as a world power and leader among nations, cannot afford to be without a merchant fleet capable of providing peacetime shipping services on essential trade routes, and, available to serve in time of national emergency. According to President Johnson:

> A strong merchant marine is a guarantee of economic stability and a guarantee of national security.[1]

In view of the depreciated state of the maritime industry and the scope and nature of the programs designed to support it, there appears to be

[1] Lyndon B. Johnson, President of the United States, in a speech during the Keel Laying Ceremony of the SS Louise Lykes, January, 1964.

little likelihood that our required national goals for the United States Merchant Marine will be realized under present government regulations and policies. The primary consideration of this paper is to review and analyze the government's role in supporting the American Merchant Marine.

CHAPTER I

HISTORY AND DEVELOPMENT

Full appreciation of an American Merchant Marine requires some knowledge of its historical development and its contributions to the nation through the years, in times of both peace and war. As a general rule, wars have been responsible for the peaks in the shipping industry of America; and peace or the slack periods between wars have usually been associated with the low points.

Since the founding of our nation, the importance of a strong American Merchant Marine has been many times forcibly demonstrated. Those who first explored and colonized the country came here in ships; and ships were their first means of communication and trade with each other, and with other countries. In war, merchant ships served first as the only American Navy, later as an important supplement to the regular Navy.

To the early colonists, lumber for shipbuilding was plentiful and trade a necessity for survival. Costs of American-built vessels were low; and by the time of the American Revolution, a full one-third of England's "merchantmen" had had their keels laid in the colonies.

As early as 1789, the need of government assistance to the American Merchant Marine was recognized in the form of a 10 per cent discount on tariff duties for goods imported on American-flag vessels. An early-established government policy of full encouragement of shipping as a national industry formed the basis for the American carriage of approximately 90 per cent of our foreign trade by 1790. This same high percentage of carriage in American "bottoms" continued until 1840. This

was the period of the clipper ship and is justifiably called the "most glorious period in the history of the American Merchant Marine." [28]

By 1860, the two main merchant fleets in the world were those of Great Britain with 5.7 million tons and the United States with 5.3 million tons. Until this point in our history, American-flag ships had been favored by the navigation laws of the major maritime nations and coupled with the superior carrying capacity, speed and seaworthiness of American ships, our merchant fleet was placed in a superior competitive position in the ocean-carrying trade. The replacement of the sailing vessel by the steamship and substitution of iron for wood in the shipbuilding turned the tide; and, although our government had granted subsidies to steamships in excess of $14 million, non-subsidized sailing packets and clippers in the Atlantic and California trades were the only American-flag ships making money at this time. [28]

The Civil War took a heavy toll in the form of destruction of many wooden American ships, and set the stage for the further decline of our merchant marine. Internal development became the focal point of both private and public endeavor, and our fleet disappeared almost entirely from the high seas. By the late 1890's we had only one trans-Atlantic shipping line in operation; and, even though the Spanish-American War was a comparatively small operation, it was necessary to acquire merchant shipping from other countries to supply our demands in Cuba.

From a defense point of view, Dyer notes of the Great White Fleet of 1907 and 1908;

> So scanty were our own Navy's logistical resources that 73 per cent of the coal needed for the cruise was supplied by foreign sources. Even in San Francisco Bay, the Fleet received its coal from British and Norwegian ships and contractors. [6]

A revival of the 1789 discriminatory tariff (this time for a 5 per cent discount) was attempted in 1913, but the particular provision became controversial as several of our treaties contained non-discrimination clauses; and the Supreme Court declared it invalid.

World War I found the United States carrying only 9 per cent of its own foreign trade, and foreign ships upon which we had depended were called into the mobilization effort of their own countries and were no longer available to us. American ports became bottle-necks of export cargo. Backlogs ran into the freight yards causing immobilization of railroad facilities; and with bankruptcy threatening the commercial export trade, emergency measures were necessary. Relief came in the form of the Shipping Act of 1916.

This Act set the stage for a 2,318 vessel shipbuilding program from 1918 to 1922, and establishment of a Shipping Board to regulate freight rates and building costs which had skyrocketed due to the short supply of tonnage. Creation of the Emergency Fleet Corporation under the Board to build and operate the ships, was a move to accelerate the program. Annual construction in deadweight tonnage more than tripled from 1914-1916 averages to 1917's figure of 950,000 tons. In 1918 construction rose to 2,600,000 deadweight tons. Few of these vessels built at a cost of about $3 billion were used in the war, however. The greatest need had come in mid-1918, when it was necessary to move troops and supplies to France; but, the much needed tonnage was still under construction and of little help on the shipyard ways. Had our allies not come to our aid with over a million tons of shipping during this period, the results could have spelled disaster. [28]

The mass-produced ships of World War I, known as "Hog Islanders,"

provided us with a fleet not suitable for peacetime operations; and a policy of recapture of investment through liquidation was advocated. The lesson had not yet been learned, and no provision was made for a long-range program to meet future emergency requirements. The period of 1922-1936 saw hardly any activity in American shipyards.

A slump in shipping during the world-wide depression in the 1930's brought the United States merchant fleet again to a dangerously low level. In 1936, our merchant marine was fourth among the six leading maritime nations in tonnage, sixth in vessels ten years of age or less, and fifth in vessels with speeds of 12 knots or over.

This same period brought only stop-gap government aid tied to ocean mail and similar subsidy programs. These on-again, off-again political subterfuges failed to assure shipowners that it was sound to invest in the American shipping industry. The American Merchant Marine had operated under competitive conditions that had at times virtually removed the American flag from the seas; and, in 1935, President Roosevelt called upon Congress to openly recognize the fact that our Merchant Marine <u>needed</u> outright financial aid to offset the lower operating and construction costs of foreign shipowners. The resulting legislation--the Merchant Marine Act of 1936--is the foundation upon which our merchant fleet is today based. Frequently referred to as the "Magna Carta of the American Merchant Marine," this Act laid down a clear national policy for the maintenance and preservation of an American-flag fleet of sufficient size to carry our water-borne commerce and capable, also, of serving as a defense force in time of national emergency.

Outright financial assistance was to be provided through con-

struction and operating-differential subsidy programs under the direction of the United States Maritime Commission which was established as an independent government agency to take over the functions of the Shipping Board and modernize the American Merchant Marine. The Commission limited the coastal, intercoastal and noncontiguous[1] trades to American "bottoms" and set forth 23 world-trade routes considered essential to our national economy. These routes formed the basis, as in the operating-subsidy program for much of the government's assistance to the Merchant Marine.

With the help of private industry, the Commission designed three basic types of cargo ships easily adaptable to the requirements of the various trade routes and suitable for use as naval auxiliaries, should the need arise. These provisions designed to place our privately-owned merchant fleet on an equal footing with foreign competition were long overdue.

Acknowledgement of the requirement for a long-range shipbuilding program also came at this time in the form of a program aimed at the construction of 50 freighters per year for a ten year period. It was fortunate that the ground work had been laid, for the first results of this program coincided with the beginning of World War II. Even though emergency measures were necessarily resorted to in providing the shipping demanded by the war, the 1936 Act had provided the framework within which the expansion of the shipping industry to gigantic proportions was made possible. There is no question of the high value of the programs initiated by the 1936 Act to the World War II defense

[1] The offshore or Hawaiian, Puerto Rican and Alaskan trades.

effort.

Before the program was well started, World War II broke out in Europe. Again as in World War I, ships were in tremendous demand. The number of ships to be built was doubled and redoubled.

With the aid of experienced shipyard management and employees, new shipyards were built and thousands of new workers were trained.

Within a year and a half after the United States entered the war in 1941, the shipyards were building ships more quickly than the enemy was able to sink them. From 1942-1945, United States shipyards built 5,592 merchant ships of which 2,701 were Liberty ships, 414 were the faster Victory type, 615 were tankers, 417 were standard cargo ships of the "C-type", and the remaining 1,409 were military or minor types. These ships were constructed at a cost in excess of $12 billion. [28] These war-built vessels were designed for one purpose: mass production; and such shortcomings as the low efficiency of the reciprocating steam engine in the "Liberty" left much to be desired if these vessels had been intended to operate in a competitive economy, but simplicity was one of their prime advantages in training crews and providing spare parts. These vessels were the backbone of our fleet during the war, and they served their purpose well. A million-and-a-half tons of shipping was kept busy just by the operation at Normandy.

Actual entry of the United States into the war and the subsequent need for a government organization to coordinate the military and civilian efforts in providing shipping services culminated in the formation of the War Shipping Administration with the chairman of the Maritime Commission acting as administrator. Broad powers were given to the administrator as required by the gravity of the situation; and

in cooperation with Great Britain, maximum and efficient utilization was made of available vessels.

The end of the war brought many serious problems. Chief among these was what to do with the excess war-built ships no longer needed for peaceful enterprise. Another was our agreement with Britain by which we had assumed responsibility for all wartime ship construction, thereby depleting her of a postwar fleet which she, along with most of the other countries of the world, desperately needed to restore their peacetime economies.

The Ship Sales Act of 1946 was enacted to cope with these problems and followed the policy set forth in the Merchant Marine Act of 1936 by establishing a reserve fleet and allowing for the sale or charter of war-built vessels to United States citizens. Sale to foreign interests was permitted for those vessels determined to be: (1) "unnecessary to the defense of the United States" and (2) "unessential to the merchant marine." Of the 5,592 war-built vessels, 700 had been lost, 640 scrapped because of heavy damage and the other 4,252 disposed of by the Act. About 1,300 of the Victory and "C-type" class were sold to American shipowners, and over 2,000 went into the reserve fleet. [28]

During this period the Maritime Commission undertook a resurvey of the trade routes deemed essential to the postwar economy of the United States, and designated 31 routes on which financial assistance in the form of operating subsidies could be made available to offset the differential costs of foreign operators in maintaining regular schedules of American vessels. This figure has climbed to 34 at the present time, plus three additional round-the-world eastbound and west-

bound services considered essential to our foreign commerce.

The world situation after World War II did not permit a return to the long-range program envisioned by the Merchant Marine Act of 1936. A large foreign-aid program together with a general shortage of competitive shipping throughout the world bolstered our private fleets; and, although other nations pursued a policy of heavy shipbuilding, we fell back on our war-built vessels to satisfy our shipping needs. This action set the stage for block obsolescence of our fleet by the mid 1960's.

In 1949, unification of military ocean-shipping operations took place in the creation of the Military Sea Transportation Service, aimed at consolidating all functions of the Army Transport Service and the Navy Transport Service, now under a Navy single-manager system. Shortly thereafter, in early 1950, President Truman's Reorganization Plan 21 brought about abolishment of the independent Maritime Commission and transfer of its duties and responsibilities to a three-member Federal Maritime Board and a Maritime Administration under the Department of Commerce. When the Korean conflict broke out, this agency was just being organized; and it lacked the necessary authority to implement emergency measures to meet the demand for shipping. MSTS, however, stepped in with a nucleus fleet of 174 vessels and rapidly expanded by chartering and using over 400 vessels from private and reserve fleets to meet the crisis. [7]

The Defense Production Act of 1950 established a National Shipping Authority similar to the War Shipping Administration of World War II; and under Maritime Administration jurisdiction, it took control of the shipping functions, thereby relieving MSTS of much of the

pressure. During the period of the Korean conflict, from July, 1950, to October, 1952, over 32 million tons of supplies and over 1 million personnel were carried in its support.

World War II and Korea proved the value of shipping to national defense just as the Spanish-American War and World War I had. Nevertheless, a declining trend has again been established. Significant increases in United States commercial foreign trade since 1950 have shown the same growth trend as general economic activity in the United States. The American Merchant Marine's share in the transportation of United States trade has however declined markedly. United States flag ships have, with the exception of World War II and the immediate post war years, carried less than half of our water-borne commerce by weight.

Prior to the war years, American vessels carried between 25 and 35 per cent by weight of American water-borne foreign trade, but in the post war years their share has declined almost steadily from a high of about two-thirds of the total in 1945 to a low in 1963 of about 10 per cent. (See Table 1.) The percentage data does however conceal the effects of the marked growth of the American foreign trade since 1950. Although their percentage share has steadily fallen, the absolute tonnage carried by the United States carriers has not shown a consistant decline but has fluctated moderately. (See Figure 1.) Therefore, the decrease in the American share results not from a decline in the traffic carried in the United States flag ships, but from the increase in tonnage carried by ships under foreign registry. This increase is keeping pace with the growth of our foreign trade and economic activity.

Numerous attempts have been made to avoid obsolescence of the

TABLE 1

WATER-BORNE IMPORTS AND EXPORTS
PER CENT BY UNITED STATES FLAG
(In millions of short tons)

Year	Total Trade	% U.S.	Total Imports	% U.S.	Total Exports	% U.S.
1935	81	31.7	38	41.6	43	22.9
1940	106	28.7	45	38.8	61	21.2
1945	101	68.4	39	79.7	62	61.2
1950	159	39.3	97	43.7	63	32.5
1952	210	34.3	107	38.8	103	29.5
1953	200	29.0	119	32.3	81	24.1
1954	199	27.5	121	30.1	78	23.5
1955	254	23.5	141	26.5	113	19.6
1956	306	21.9	160	24.8	145	18.9
1957	338	18.8	172	20.1	166	17.5
1958	290	13.5	176	11.7	115	16.3
1959	308	12.0	200	9.6	108	16.4
1960	323	12.3	199	9.9	124	16.3
1961	315	10.6	188	8.1	128	14.4
1962	345	11.0	211	8.7	134	14.6
1963	369	9.9	213	7.4	156	13.4

Source: Statistical Abstract of the United States 1964. [24]

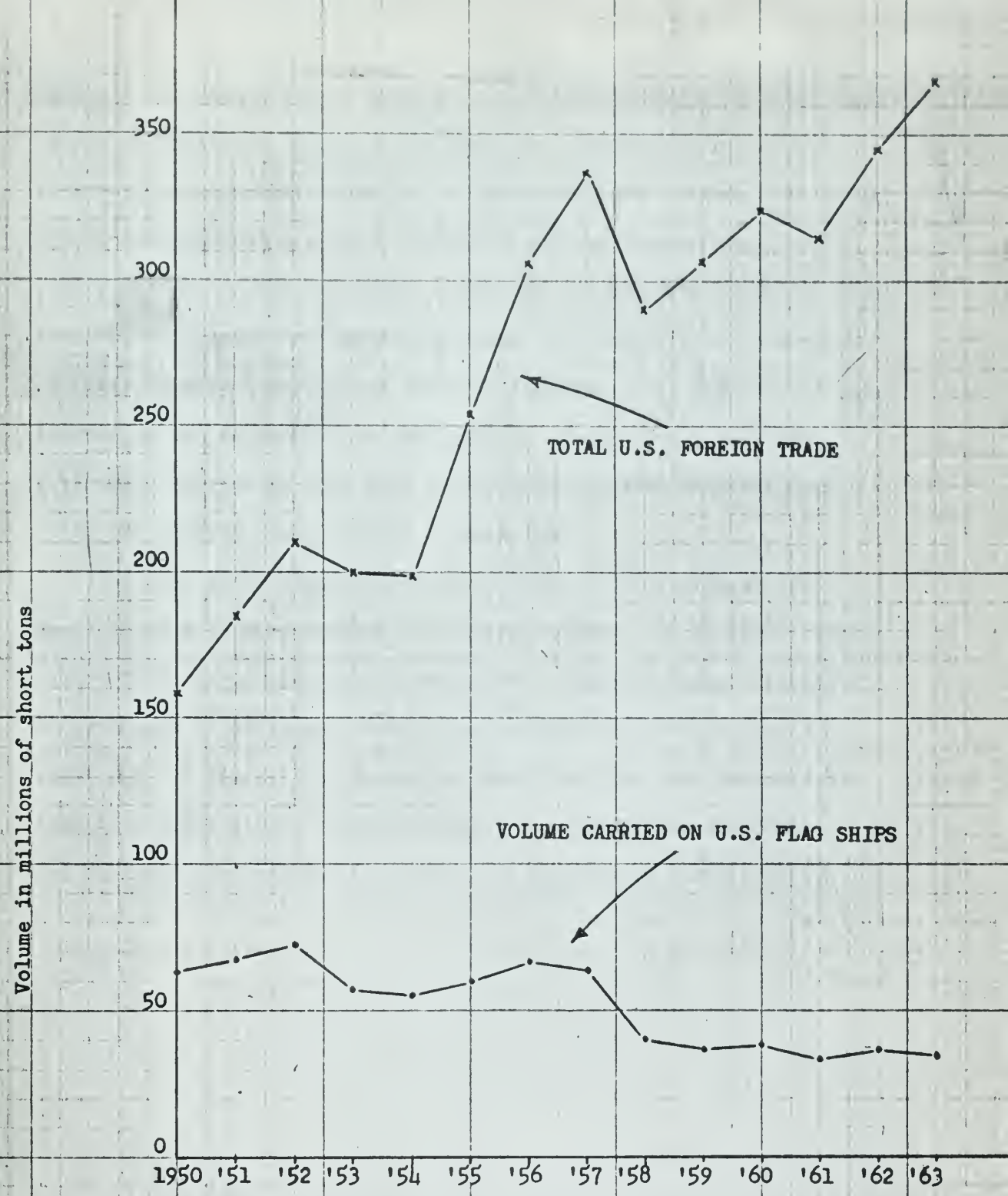

FIGURE 1

TOTAL U.S. FOREIGN TRADE AND THE VOLUME CARRIED
ON U.S. FLAG SHIPS
(1950 - 1963)
(BASED ON DATA FROM STATISTICAL ABSTRACT
OF THE UNITED STATES 1964)

American Merchant Marine. This was a determining factor in 1936 legislation and again in 1950 when the Maritime Administration asked for Congressional appropriations for 35 "Mariner-class" vessels, 20 knot, 13,000 deadweight ton ships. This $350 million program was a great disappointment in many respects. Although the building of these ships kept the shipyards busy and strengthened our defense posture because of their excellent design and built-in features, they did not fit into commercial use as readily as anticipated. Except for a few under government contracts, high cost of operation steered most Mariners into the reserve fleets within a short time.

The Long Range Shipping Act of 1952 was another attempt at encouraging and strengthening our merchant fleet. It offered broader tax benefits to non-subsidized operators, limited mortgage liability in purchases of passenger vessels and reduced the trade-in age for vessels to 12 years old. Success of this plan has been hampered by limited availability of federal funds for construction assistance, but at least the need has been seen and legislation enacted. [26]

CHAPTER II

THE MERCHANT MARINE AND NATIONAL ECONOMY

In the last third of the twentieth century, the nuclear age, it is probable that consideration of the United States Merchant Marine's value will be more closely associated with political-economic requirements rather than military-political requirements. The United States Merchant Marine will be employed not only to promote United States international commerce, but also to further national objectives by showing the flag, carrying aid to underdeveloped countries, delivering products of the economy to world-wide ports, and in particular, insuring that the United States has national control of its sea transport capabilities needed to support the United States economic base. The concept of military needs for merchant ships will be encompassed by the broader definition of national goals and policies. Hitch and McKean, in their book, "The Economics of Defense in the Nuclear Age", [12] discuss the potential threat to our nation. They feel that the greatest threat to the United States is either participation in political-economic struggles, or, engagement in limited and localized conflicts throughout the world, rather than all out thermo-nuclear war. If these are indeed the threats, then the role of the shipping industry would be to prepare the merchant marine to handle limited emergencies, and, possibly more important in the long run, to provide service to the ports of underdeveloped nations equally with the service being given by those ships of the Communist bloc.

Transportation by water has been historically the least costly

mode of moving the products of the world trade, and development of commercial centers at geographical locations favorable to the maritime industry is proof of the influence of shipping upon both the domestic and international commerce of all nations. Ocean shipping encourages world trade by providing a cheap means for capitalizing on international specialization and must be thought of as an economic service normally available but, nevertheless, subject to the laws of supply and demand as any commodity would be. It is in the interest of every nation to take advantage of world markets; and the United States, as the leader in world trade, is highly dependent upon her own merchant fleet as a pipeline to carry the flow of products and goods necessary to maintain its economy. However, many foreign governments have participated in "unfair trade practices" against the American shipping industry. They have employed a variety of devices to accomplish this end. Among these are the following: exchange control, preferential berthing arrangements for other foreign flag vessels, discriminatory pilotage and docking fees for American ships, and regulations requiring the use of foreign customs brokers when American shipping companies had branch offices capable of taking care of these matters. [11]

To discourage these forementioned discriminatory practices, the government of the United States should take an active part in trade conferences regulating such malpractices. It must be prepared to support our shipping industry by exercising its influence as a world power at such conferences, and at intergovernmental negotiations concerning this problem. Discrimination against United States shippers can best be countered by negotiations by the government to eliminate these practices, rather than by exercising counter discriminatory

measures. Active participation in the development of such a program requires a determination of specific areas in which the government might be of assistance to the private shipping industry.

The United States is virtually 100 per cent dependent upon ocean shipping for its export-import trade. Inroads have been made into use of air transport, but, bulk shipments of material depend on the reliable merchant ship. The United States is today the world's greatest importer and exporter. Almost half of the world's output of raw materials and more than a third of the total industrial production of the world are now channeled to the needs of the American economy.

The growth of American industry is such that its needs have outgrown its domestic supply base. The country is no longer self-sufficient in natural resources except for coal and agricultural commodities. The United States has great deficiencies in tin, manganese, chromite, and bauxite; and has become the world's largest importer of copper, lead and zinc, whereas we were once large exporters. More than 40 of the 72 strategic and critical commodities listed by the Office of Civil and Defense Mobilization are entirely imported, as are portions of the rest. [7] The aluminum industry acquires 85 per cent of its bauxites through ocean shipping, and 85 per cent of the manganese and 35 per cent of the iron ore used in making steel comes to this country by water. Increasingly the United States looks to Canada, Latin America. Africa, the Near East, and South and Southeast Asia for larger quantities of raw materials. [9]

The continued and competitive expansion of American industry depends heavily on these imports of raw materials from the primary producers which are found largely in the underdeveloped nations of

the world. It is important to remember that these imports reach the United States almost solely by ocean-borne commerce. Exports are equally important, and it is the merchant marine which provides our industry and agriculture with a means by which they can expand their world markets. Exports account for over 17 per cent of our output in cotton production, almost 30 per cent of our wheat, and 19 per cent of our machinery. [9] While ships themselves may be secondary in the creation of trade, continuity of shipping services is of great importance to the development of foreign trade. Where American flag ships have serviced trade routes regularly, they have definitely been a stimulant to the creation of trade. In this role, our shipping fleets serve as an instrument of our national policy and aid us in building our prosperity and raising our standards of living.

By maintaining control of a minimum amount of shipping under the American flag, the government can: (1) ensure coverage of all trade routes considered essential to our foreign commerce, (2) insure continuity of service to shippers, and (3) protect American shippers against discriminatory practices of foreign interests.

This is done under our free-enterprise system through the use of operating-differential subsidies which are paid to private shipping companies to offset the added expense of labor, maintenance, and safety features which foreign competitors do not have. On June 30, 1964, 18 ship operators held operating-differential subsidies on 318 vessels out of 587 United States-flag merchant ships serving actively in our foreign trade. The annual cost to the government for operating-differential subsidies is approximately $99 million. [26]

Aid to the ship operators alone has not been sufficient to

maintain the high standards set by the government for vessels flying the American flag, and a program of ship-construction subsidies has also been undertaken to ensure a fleet of modern ships capable of economic operation in a highly competitive business. This program recognizes the difference in costs between shipbuilding in foreign countries and the United States grants subsidies up to 50 per cent of the total cost of the vessel, less the cost of any built-in defense features deemed appropriate by the Navy Department, which are additionally paid for by the government. Construction-differential subsidies in the fiscal-year 1964 (including reconstruction) was over $88 million, and costs of national-defense features paid for by the government exceeded $300,000. [1]

Federal assistance to our private merchant fleets takes other forms as well, such as the provisions in law requiring that at least 50 per cent of government cargoes must be carried in American-flag vessels. American-ship operators are also favored by legislation allowing participation in rate-setting conferences normally considered to be illegal and in restraint of trade under our free-enterprise system. The government agency established to administer these programs and carry out the policies of the government with regard to the American Merchant Marine is the Maritime Administration, acting under delegation of authority by the Secretary of Commerce.

The American Merchant Marine has more impact on our economy than may be generally realized for, besides a large fleet of ships, crews, and shipyards, it consists of office and port facilities, cargo-handling equipment, warehouses, and a host of other related activities. The sea and shore operations and the shipbuilding activities alone

contribute over $2.8 billion a year to our Gross National Product. Related domestic transportation warehousing, handling, and port operations are estimated to contribute more than $3 billion; and fuel oil, stores, food, and other consumables account for another $500 million a year. In the passenger business, American-flag ships provide over 20 per cent of the ocean passenger service for travellers between the United States and Europe; and the names of such vessels as the UNITED STATES, CONSTITUTION, and INDEPENDENCE are known throughout the world. [10]

Shipbuilding plays an especially important part in our economy; and at the end of fiscal-year 1964 there were 44 vessels under construction, conversion, or reconversion in United States privately-owned shipyards, with a contract value of over $491 million. Under a government insured loan and mortgage program aimed at increasing private financing of ship construction, the Maritime Administration reported 19 ships financed for a value of $85 million as of June 30, 1964; and eight applications were pending at that time for another $152 million for construction of 28 ships. [1]

American-flag lines spend over $7 million each year on electrical products, $3 million on china and glassware, and $2 million on linen; and it is estimated that the American Merchant Marine is directly responsible for a total of 250,000 employed people which includes seagoing personnel, longshoremen, dock employees, and shipyard workers.

As far back as 1959, $49 million was spent on fuel and $40 million on subsistence and stores. Insurance and repairs also amounted to $40 million and $32 million respectively. The merchant marine employed over 60,000 citizens on board ship, and the supporting

shipbuilding industry employed in excess of 100,000 workers. The same year stevedoring and other cargo handling services cost $165 million.[10]

These figures are evidence of the impact of the merchant marine on the economy of the United States; and it is evident that the scope of the government's programs with regard to the merchant marine are large, costly, and have far-reaching economic effects. Formulating policy, establishing regulations, and implementing controls for the maritime industry is of great importance to the American people.

CHAPTER III

POLITICAL AND ECONOMIC ASPECTS

There is no doubt but that the primary reasoning behind much of the legislation and actual appropriation of public funds in favor of the American Merchant Marine lies in the potential of shipping as a defense force--a so-called "fourth arm of defense". In recent years however, the value of ocean shipping in event of either limited or all-out nuclear war has been seriously questioned. These arguments frequently state that loss of port facilities would immobilize whatever shipping was available, and wartime pooling of allied shipping under NATO or other alliances would be sufficient to adequately meet any emergency needs. We have only to look at the Lebanon crisis to assure ourselves that the flag vessels of some of our allies would not be welcome in all instances, or review the Suez emergency for proof that we cannot depend on foreign shipping--even that of our allies. History shows that today's friend may be tomorrow's enemy, and there may be more to be gained through use of shipping as a defense in the cold war than in either a limited or all-out nuclear struggle.

Determination of limits of spending for defense is one of the biggest problems facing our nation. The usual approach is to attempt to match the capability of the opposition, or at least to be able to compare figures with him in some aspect of mutual forces. Communist use of shipping to undermine freight rates in competition with free-world shipping could lead to serious consequences by "railroading" vital cargoes and disrupting established trade. How large our American Merchant Marine should be, and to what extent it should be

supported by federal aid are questions of primary interest. In order to "know our enemy" and resolve these problems, it is essential to include Communist shipping within the scope of study.

The Soviet development of its merchant shipping has run a close parallel to its well-known long-range program for submarine development. Thus, the Soviet Union has shown recognition of the power to be gained from control and use of the seas in both peace and war. Soviet capability to carry but 10 per cent of its ocean trade in the 1930's had jumped to more than 50 per cent by 1957. At the latter time American-flag vessels were carrying less than 19 per cent of all American ocean-going cargoes. [14]

Recent entrance of the Soviet Union into the ship-charter market, offering attractive prices when advantageous for them to do so, points out the possible implications that unethical practices could have in the field of ocean shipping. Full control of Soviet-flag shipping by a central government agency allows such strategies as operating at financial losses to gain political advantages and making maximum use of shipping programs in propaganda efforts.[1] A good example of the latter has been shown in publicizing the delivery of goods to underdeveloped nations in Soviet vessels. The Soviets pass up no opportunity to use discriminatory practices, and trade agreements with the Soviet Union can usually be found to include stipulations calling for a substantial amount of participation by Soviet merchant ships. This has been seen recently in Cuba. Close coordination

[1] The primary role of the Soviet Merchant Marine is economic, but it has been assigned an important secondary role as an instrument of propaganda. [14]

between maritime, political, and economic objectives can be expected in all future Soviet policy formulation.

On June 30, 1964, the American Merchant Marine had an active fleet of 886 vessels of almost 15 million deadweight tons, and an inactive fleet of 1,745 vessels. In comparison the Soviet Union, which has no reserve fleet, had 1,149 active vessels with 7.3 million deadweight tons. (See Tables 2 and 3.) Satellite flags fly on more than another 4.2 million deadweight tons of shipping, and Communist China is able to contribute another modest three-fourths million under its flag. This total of roughly 12 million deadweight tons of Sino-Soviet-bloc shipping accounts, however, for only 6 per cent of the shipping controlled by countries under NATO and which can be assumed to be available to the free world in case of the outbreak of hostilities.

Under a seven-year plan inaugurated in 1958, the Soviet merchant fleet was scheduled to double in size by 1965. A strong Soviet fleet of the size targeted for, could have an untold and serious impact on free-world trade and economics. Current Soviet plans call for a merchant fleet of from 20 to 25 million deadweight tons by 1980. Assuming a continuation of the present building program and additions to the fleet of nearly 1 million deadweight tons annually, this objective should be met with relative ease. One problem that presently faces them is lack of standardization in existing vessels. Much of their present fleet is a conglomeration of vessels (some of which even burn coal); and there is a wide variety of foreign design and construction in evidence, including 83 lend-lease tankers never returned to the United States after World War II. [14]

Technological problems are not the only difficulties they have

TABLE 2

SELECTED MERCHANT FLEETS OF THE WORLD

Number of Ocean-going Vessels and Deadweight Tons
Vessels of at least 1,000 Gross Tons
June 30, 1964

		Number of Vessels by Type			
Registry	Total Number	Comb. Pass. and Cargo	Freighter	Bulk	Tanker
Total-All	18,072	1,097	11,087	1,779	3,459
U. S.	2,631	267	1,898	78	388
U. K.	2,168	105	1,092	276	509
China (Red)	165	19	107	18	18
Cuba	33	--	30	1	2
France	84	46	281	61	157
Germany	849	18	654	68	47
Greece	847	42	611	82	100
Israel	73	6	55	7	2
Italy	607	73	286	90	143
Japan	1,266	28	828	162	210
Liberia	1,056	9	425	197	422
Norway	1,382	24	645	208	474
Panama	546	16	346	33	144
Sweden	497	10	283	79	90
U.S.S.R.	1,149	75	654	162	191

Source: Annual Report of the Federal Maritime Board and Maritime Administration 1964. [1]

TABLE 3

EMPLOYMENT OF UNITED STATES-FLAG
MERCHANT SHIPS

Number of Ocean-going Vessels and Deadweight Tons
Vessels of at least 1,000 Gross Tons
June 30, 1964

Total Vessels*	2,631
Active Vessels	886
United States Foreign Trade	587
Maritime Administration	33
Panama Canal Company	2
Privately Owned	552
United States Domestic Trade	299
Maritime Administration	3
Privately Owned	296
Foreign to Foreign--Privately Owned	8
Inactive Vessels	1,745
Temporarily Inactive	89
Maritime Administration	2
Privately Owned	87
Maritime Administration Reserve Fleet	1,656

Source: Annual Report of the Federal Maritime Board and Maritime Administration 1964. [1]

*Excludes 60 Government vessels not available for commercial purposes.

come up against. Manning and personnel problems are also a source of trouble to the Soviets. Soviet programs are now aimed at educating and training both seagoing and shoreside maritime personnel, and at standardizing design in shipbuilding in attempting to overcome these obstacles to the long-range plan for merchant shipping. Emphasis is being placed on large, fast more sophisticated ships. Considerable additional emphasis is being placed on shipboard automation, and on the development of mechanical devices designed to increase productivity in cargo handling. Appearance of modern, well-constructed vessels on the high seas, information on use of latest shipbuilding techniques in Soviet shipyards, and increasing Soviet interest in ocean shipping should not be shrugged off lightly. [14]

Between 1954 and 1957, the Soviets undertook a crash program aimed at turning out one tanker a month. This program has now tapered off to five a year, but present heavy reliance on chartering of tanker capacity to help carry its increased exports of petroleum products cannot be expected to continue and may well cause a new increase in production of vessels.

The American Merchant Marine today is the largest in the world, numbering almost 3,000 vessels of well over 30 million deadweight tons. (See Table 2.) In addition to this, there are over 500 United States-owned vessels registered under "flags of convenience", including about half of the total of the United States-owned tanker fleet.[2] The

[2] Registry of vessels under foreign flags is an attempt to avoid union influence and high-wage costs associated with United States-flag registry. [9]

government, through agreements with the owners of "flag of convenience" vessels, assures the availability of these vessels to the United States in time of war. These vessels now carry about 27 per cent of our foreign trade. Coupled with the almost 10 per cent carried by American-flag vessels, we can be said to carry less than half of our foreign commerce in United States-controlled ships--all of which should be available in event of war. Presently under pressure from maritime unions at home and foreign competitive interests abroad, our fleet of "flag of convenience" vessels provides a substantial "force-in-being" from the defense point of view. Return of these ships to United States registry in peacetime would drive them from the sea and weaken our sea power. The "flag of convenience" ships are modern (over half being less than nine-years old), fast, and efficient, accounting for 40 per cent of our government-controlled active merchant fleet. It is important to note that these vessels are not subsidized and are, therefore, no direct burden on our government's expenditures for defense. [9]

On June 30, 1964, there were 1,745 inactive vessels in our merchant fleet, 1,656 of which were in a reserve-fleet status. A large portion or about 1,200 of these vessels are Liberty ships; and a government program to scrap a target figure of 1,000 of these 11-knot vessels in near-readiness status has been undertaken, but not without much criticism. Maintenance costs of reserve-fleet vessels run about $3,000 a ship per year, or over 5.2 million last year. The fact that 434 Liberties were reactivated for the Korean crisis should serve as a reminder of their value, and act to deter such a move. Liberties could be a most useful asset in any limited war where supply lines are considered inviolate. In such a case, their slow speed, normally

considered a great disadvantage against submarines, is not a critical factor. Also included in the reserve fleets are approximately 300 Victory ships with a 17-knot service speed and over 150 transport-type vessels, also in this higher-speed range. [1]

Block obsolescence now threatens our active tramp fleet of 700-odd vessels, most of which are also Liberties and which do not receive operating-differential subsidies. The forced set-aside of funds from subsidized-line revenues for vessel replacement at today's shipbuilding costs appears to be somewhat inadequate. If subsidized operators will not be able to replace their vessels under current programs, it can hardly be expected that non-subsidized operators would be in any better position to replace their vessels fast approaching retirement age.

The government's present replacement program centers around the subsidized-operator agreements to replace 282 vessels over a long-range period which extends into the 1970's. Present schedules minimize the mid-1960's 20 year obsolescence threat, and plans for the next three years call for about 34 ships per year. Much of these and the non-subsidized fleet-replacement program depend on availability of government funds for the estimated 50 per cent of the construction costs to be shared by the government, plus the total costs of any defense features. [1]

Speed of merchant vessels is important from the defense viewpoint in considering vulnerability to submarine attack. It is considered that a significant advantage is gained at speeds in excess of 25 knots. At present there are only three United States commercially-operated passenger ships in this class: the CONSTITUTION, the INDEPENDENCE, and

the UNITED STATES. The average cargo vessel operates in the 14 to 16 knot range. Even the NS SAVANNAH is only designed for a modest 21 knots.

There is no doubt that the prime reason necessitating government aid to maintain an American-flag fleet stems from the high cost of American labor, and it is estimated that from 75 to 85 per cent of wage costs are paid for by the government subsidies. This high cost is borne in return for preserving a hard core of personnel needed to build and man our ships in emergencies. World War II increased the number of shipyard employees to ten times the prewar level and more than tripled the seagoing personnel. From a defense viewpoint, ships alone are not enough; and lack of trained personnel could be a major problem. United States-owned vessels operated under "flags of convenience" could face a serious manning problem if these vessels were recalled to the American flag or put under account for our government.

American wages paid to seagoing personnel are three times those paid to their counterparts on foreign-flag vessels. (See Table 4.) The high pay received by seamen puts them in the upper wage scale of American labor. According to an American Merchant Marine Institute Research Report, an able-bodied seaman earns over $700 a month on a typical United States-flag C-2 vessel. This includes overtime and employer contributions to funds, but does not include payroll taxes, subsistence and lodging, transportation and accident insurance. There appears to be justification behind the argument that high wages are driving ships away from the American flag. Is it any wonder that "one of the largest unions of unlicensed seamen has almost twice as many members as there are jobs available" ?[5]

TABLE 4

AVERAGE DAILY OPERATING COSTS C-2 VESSEL
VARIOUS FLAGS - ESTIMATES 1964

	United States	Britain	Germany
Wages	$1,234	$353	$300
Subsistence	96	80	78
Stores, Supplies and Equipment	100	92	88
Repairs and Maintenance	230	138	151
Insurance	210	155	206
Miscellaneous	40	24	21
Total Expenses	$1,910	$842	$844
Fuel-Steaming	$609	$609	$609
Fuel-In Port	$120	$120	$120

Source: Seafaring Premium Pay. Maritime Administration 1964. [23]

Labor-management relations in the maritime industry are notoriously poor. The Maritime Administration reports that last year prolonged strikes hampered operations in no less than eight large shipyards. Racketeering and jurisdictional disputes in maritime unions have brought nothing but public wrath upon the industry, and it is difficult to find signs of improvement. With so many union men available, it is very discouraging and difficult to recruit new talent into a career which holds little opportunity even for the most enterprising.

For mobilization purposes, shipbuilding and repair facilities are obviously important. Presently there are 26 commercial shipyards considered of sufficient size to have mobilization value. Besides the 127 shipbuilding ways in these yards, there is a capacity for more at government-owned reserve shipyards. Allocation of many of these ways has been made to the Navy if needed, so only the balance of them would be available for construction of merchantmen. There are also approximately 100 drydocks capable of handling vessels of at least a 477-foot length. The Navy owns 37 of these. [7]

The backbone of the mobilization effort for ocean shipping is, without question, the Military Sea Transportation Service. In any emergency, large or small, this organization would be the first to swing into action and absorb the full initial impact of the heavy demands of war. Charged with the responsibility to provide ocean transportation for Department of Defense cargoes and personnel, MSTS plans and arranges for commercial shipping services needed to augment its own nucleus fleet of some 100 odd vessels. As of September 1, 1964, there were 43 vessels in the MSTS Commercial Fleet. One of MSTS's tasks is to plan for and be capable of rapid expansion to meet the

demands of any emergency. MSTS enjoys a fine reputation in the maritime industry, although it has been under attack as a competitor with with commercial shipping interests on numerous occasions. A joint agreement with the Maritime Administration ensures use of United States-flag ships where available to augment nucleus MSTS vessels. The question has always been how large the nucleus MSTS force should be to meet DOD requirements without infringing upon the rights of commercial vessels to carry government cargoes; and there has, as yet, been no satisfactory answer. [11]

There are many "ifs" in determining a suitable size for a merchant marine that will support our national needs. With emphasis on the defense requirements, estimates of the tonnage that we should maintain in our active fleet range from ten to over 20 million deadweight tons.[11] This is comparable to a range of between 1,000 and 2,000 vessels. From number of ships now available under United States control, the surplus of seagoing personnel and the available facilities, no critical situation can be assumed to exist.

There are however, many problems to be faced and solved if we are to maintain our relatively strong maritime position in the world of tomorrow. Among these are:

1. the present reality of block obsolescence,
2. the loss of United States controlled vessels through reduction in "flag of convenience" fleets,
3. the depressed labor-management relations in the maritime industry, and,
4. the tendency to cut financial assistance to Merchant Marine in time of peace.

Government policy and provisions for assistance to the private shipping industry have been set forth in various Merchant Marine Acts through the years, and an examination of the legislation is considered pertinent in determining if it is adequate to meet our needs of the future. As Ralph E. Casey, former President of the American Merchant Marine Institute, put it:

> The maritime industry is aware of most, if not all, of its own problems, and in many cases we know the solution. The difficulty arises when we seek the necessary tools or assistance in solving these problems. [5]

CHAPTER IV

LEGISLATION AND SUBSIDIES

Formulating maritime policy was an important government function in the days following the American Revolution, but legislation was generally defensive in nature and designed primarily to counter the discriminatory practices of other maritime nations. It was early established in legislation, however, that all American-documented vessels would be built domestically and that foreign-flag vessels would be excluded from American intercoastal commerce. Our shipping industry was flourishing and highly active in the markets of the world, and needed little help from government in maintaining its strong competitive position. Other countries, not so fortunate, found it necessary to give direct aid to their fleets, and resorted to mail subsidies for this purpose. By mid-nineteenth century, the foreign-built iron steamer had become a strong contender with the American-built wooden sailing vessel; and, following the lead of others, we too turned to the mail-subsidy concept. We used these measures from 1847 to 1857 and again from 1864 to 1877, but they were ineffective and proved to be of little practical benefit.

The period from 1891 to World War I was again a time in which was certainly recognized that the American Merchant Marine was inadequate to meet the demands of commerce and defense, but again, only the mail subsidies were used. The primary reason for not having an effective maritime program was that public opinion frowned on any large-scale use of public funds to underwrite a comparatively small segment of private enterprise. Many people could see no reason for supporting a national

merchant fleet and felt the funds could be better used elsewhere. To show how meager was the government's policy of assistance during the early part of the century, consider the indirect and vague wording of the Ocean Mail Act of 1891, upon which the whole industry existed. It stated only that mail contracts should "subserve and promote the postal and commercial interests of the United States." This was certainly no realistic appreciation of so grave a problem for a nation which was about to enter a struggle for its very survival. Although this period saw many bills presented before Congress and the launching of many investigations, no specific merchant marine program was forthcoming until passage of the comprehensive Shipping Act of 1916.

This act created the United States Shipping Board and authorized it to form a corporation (known as the Emergency Fleet Corporation) to procure the necessary vessels to serve the nation's wartime shipping requirements. In addition to its proprietary functions, the board, as an independent government agency, was assigned regulatory responsibilities in connection with American ship-operator participation in ocean shipping rate-setting conferences. Shipping conferences were, by this time, recognized as being essential to the industry and exempt from antitrust legislation. The regulatory provisions of the Act required notification be given the government whenever rate agreements were entered into or changed, but did not provide for any direct government participation in setting the rates--only approval, disapproval, or cancellation. American shippers currently deal with well over 100 conferences, and some American-ship operators belong to as many as 20 of them.

As amended, the Act required government approval of any change of

vessel ownership to foreign interests or change of its documentation to a foreign flag. In emergency situations, shipbuilding and related facilities could be brought within the scope of the Act, thereby ensuring priority of national interests. Present-day Maritime Administration policy in considering requests for transfer to foreign flag, or sale to foreign interests, takes into account national-defense requirements as well as national commercial needs; and, generally speaking, it is approved only in cases of vessels over 20 years of age, or where effective control of the vessel will remain with the United States. Sale or transfer of flag vessels less than 20 years old is made possible where the present owner agrees to build a replacement vessel, meeting Maritime Administration specifications, in an American shipyard for American registry. The 1916 Act is very much a part of present day legislation and, although long in coming, can only be regarded as an emergency measure taken in view of the imminence of war at the time of its enactment. [26]

The Merchant Marine Act of 1920 repealed some of the World War I emergency legislative measures, and had, as one of its primary purposes, the sale of the war-built vessels; but, more important, it "embodied the first definitive statement of government policy under which aid could be given the American Merchant Marine". [17] It stated:

> It is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater part of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ...and it is hereby declared to be the policy of the United States to do whatever may be necessary to develop and encourage the maintenance of such a merchant marine...

One provision established a $125 million construction-loan fund;

and, although this particular program was not effective, it set the stage for later government participation in shipbuilding activities. Subsidy payments were still tied to the mails, however; and these were only slightly changed by the 1920 Act. Recognition of certain mortgage rights, not previously considered valid in admiralty courts, brought the kind of security needed to induce private investment in ship construction; but, unfortunately, the surplus of war-built ships, which the government was unable to sell, offset all measures to build up the peacetime merchant fleet, and only caused low shipping rates and a generally depressed industry.

The Merchant Marine Act of 1928 was another attempt to break the bottleneck of obsolescence created by the excess of World War I fleet; but even with its provisions for doubling the size of the origional construction-loan fund, and broadening of the mail-subsidy program, a total of only 57 vessels was built under the provisions of both of these Acts. Ocean-mail provisions of the Act of 1928 were made contingent upon the ability of vessels to meet certain national-defense requirements. Eligibility required vessels to meet plan and specification criteria approved by the Secretary of the Navy, or to be shown useful to the nation in time of emergency. Other mail-subsidy requirements were that at least one-half of the crew had to be United States citizens, vessel documentation was to remain under the American flag for at least 20 years, and the vessels were subject to priority control by the United States for national-defense purposes if the need arose. The 1928 Act was found to have its shortcomings, however; and these were brought out in the Magnuson committee report in 1950. [17]

First the compensation granted American lines was not

> based upon actual conditions encountered on the particular route served, so that some lines got more than they needed, while others competing with subsidized foreign companies were given too little aid. Second, the ship replacement provisions were somewhat too laxly enforced. Third, loans for shipbuilding were made at varying rates, so that lucky lines got money at almost nominal interest charges, while others paid several times as much, creating an element of unfairness. This, however, was not due to favoritism, but to legal interpretation of a carelessly worded section of the act ... Fourth, there was inadequate supervision over the use to which subsidy money was put by the lines, officers of one or two companies paying themselves bonuses and dividends when their companies were almost going bankrupt. Fifth, there was complaint that in violation of law, contracts were so worded that public bidding was frustrated and only a predetermined line could comply.

In answer to President Roosevelt's question directed at Congress in 1935 as to "whether or not the United States should have an adequate merchant marine", the Merchant Marine Act of 1936 was enacted. This is today the basic legislation which effectuates the government's policy of assistance to the American shipping industry. It eliminated the ineffective mail-subsidy program and replaced it with a positive, direct, and useful assistance program to be carried out through a government agency vested with broad powers. Under the present organization, the Maritime Administrator, as head of the Maritime Administration in the Department of Commerce, and chairman of the semi-independent Federal Maritime Board, is responsible for investigating and determining ocean services essential to our foreign commerce, determining the types of vessels to be employed in providing these services, and setting schedules necessary to maintain regular sailings. The Federal Maritime Board weighs foreign-government aid to their respective merchant fleets and determines wage, operating and construction costs in foreign countries for use in authorizing subsidy

payments to American-flag-vessel operators; and the Maritime Administration is charged with administering subsidy contracts, aiding ship operators through insured loans and mortgages, paying for defense features in construction, and disposing of vessels traded in as credit for new construction. [26]

Historically, subsidies to private shipping interests have been justified on the ground that a large foreign trade fleet giving employment to American citizens, contributes to national defense, assures against an interruption of service in time of war, and promotes foreign trade by improving the quality of service available to American businessmen by safegurading them against discrimination.

The maritime ship operating-differential subsidies are the only Federal programs where the word "subsidy" appears in the appropriations title. The word "subsidy" also appears in the language of the appropriations for ship construction and in the basic legislation authorizing ship construction-differential subsidies.

Although these programs are thus inequivocally subsidies by even the narrowest of definitions, it is difficult to set forth simply the total volume of these maritime grants. This is due to three major factors--the fact that payments for the construction of a given vessel extend over several years; because of provisions for recapture and cancellation of subsidies for several years after the subsidy has actually been provided; and because of necessary adjustments and revisions made by the Maritime Administration.

The construction-differential subsidy is intended to aid the shipbuilding industry. The financial assistance may be paid to any

American-flag owner who builds a ship in a United States shipyard to be used in the foreign trade of the United States. Basically, the term means that the Government under certain conditions and limitations will pay the difference between the cost of constructing a ship in a United States shipyard and the reasonable and fair estimate of the cost of constructing the same type of ship in a foreign shipyard. The law provides that the subsidy paid shall not be in excess of 50 per cent of the domestic construction cost, exclusive of cost of national defense features.

Granting of construction-differential subsidies authorized by the Merchant Marine Act of 1936 is dependent upon many prerequisites. Among these are the requirements that American-produced supplies and materials will be used during construction; and, after completion, the vessel will be used only in foreign trade or round-the-world operations. To establish a wide national defense mobilization base, provisions are set forth to permit allocation of work normally reserved for competitive bidding. This helps maintain a minimum amount of skilled shipyard workers at various locations throughout the country and keeps private shipyards open that would otherwise go out of business. The present ship building replacement program started in 1955 will provide for replacement of some 299 ships by 1975 at a total estimated cost of over $4.5 billion.[9]

Replacement of these ships will require the Government to pay up to half the cost of the ships plus the cost of the national defense features. The program will provide an estimated 210,050 man-years of employment with estimated earnings of shipyard labor of $1.2 billion.

It will provide employment and earnings to industries supporting the ship building industries. It will result in considerable tax revenue to the government in the form of income and corporate taxes. It will assure the replacement of obsolete vessels with modern ships of American design and construction on a planned schedule of replacement that is designed to avoid peaks and valleys of construction work. It will assure a retention of a nucleus of American shipbuilding skills and adequate facilities to meet normal and emergency requirements.

Why are construction-differential subsidies necessary? This answer lies in the technique of shipbuilding since the construction of ocean going vessels is not susceptible to mass production methods of the assembly line. Ordinarily the number of ships to be built is small. Each one is a "custom job" built to unique specifications as required by the prospective owners' intended use of the vessel. Even when each ship is not unique, traditional assembly-line mass production methods cannot be used. The unit to be manufactured is large and complicated and cannot be manufactured in the manner of an automobile or household appliance. When high rates of output are necessary, multiple--not mass--production occurs. The number of yards or sub-assembly shops is increased, but the "labor-intensive" methods of manufacture and assembly largely remain. Some improvements in techniques are fundamentally alike,although there is evidence indicating that American shipbuilders achieve higher labor productivity than the foreign shipbuilders do, their superiority is not enough to offset the higher wage rates they must pay.

At present there are no technical developments in the future that will enable American shipbuilders to cut costs enough to compete

successfully in an international market. Shipbuilders in the United States can retain their workers only by paying wages sufficiently high to keep them from being employed elsewhere in the economy. However, by paying these wages, their costs are raised above the internationally competitive level.

In addition to granting construction subsidies to the operators, the Federal Maritime Board is authorized to construct vessels for its own account. In most cases, these vessels are then sold to the operator at the estimated cost of construction in a foreign yard. This requires larger Congressional appropriations, however, and is less preferred than the normal methods by which the operator is reimbursed for the amount of the differential. As an incentive to build new vessels and remove the obsolete ones from use, the Act provides for trade-in of vessels at least 12 years old on a basis highly favorable to the ship operator. The ships traded in are put into the National Defense Reserve Fleets created by the Merchant Ship Sales Act of 1946. This procedure helps keep the Reserve Fleet vessels in a constant turnover status, thereby allowing for scrapping of only the older vessels in poorer condition. Determining characteristics of size, composition, and speed of reserve-fleet vessels is a task shared by the Navy and the Maritime Administration, and is based on the Joint Chiefs of Staff annual statement of requirements. Reserve-fleet vessels provide a buffer force of ships and may be chartered to the account of any government agency or private American citizen. It is of importance to note that only a small number of tankers are available in the reserve fleet, and last year numbered less than 100. Congress provided legislation from 1954-1958 to build up this portion of the

reserve fleet by accepting tankers over ten years old into the trade-in-and-build program. Other aid has taken the form of deferred taxes on profits set aside by ship operators for vessel replacement.

One of the most important forms of financial aid provided to the United States merchant fleet is the operating-differential subsidy. The term simply means that the Government will pay the difference between the cost of operating a United States vessel and the cost of operating the same type of vessel in the same service under competitive foreign flags.

The 1936 Act provides for the use of operating-differential subsidies for vessels considered essential to maintenance of established trade routes. These contractsare designed to be of a long-term nature, but cannot exceed a statutory limit of 20 years and in no way assure the operator for expenses in which he is at a substantial disadvantage in competition with foreign vessels in the same trade. Operating-differential subsidies are undoubtedly the most important single aspect of government aid to the merchant marine. To be eligible, vessels must be domestically built according to Maritime Administration and Navy Department approved plans, and less than 20 years old. Operators of such vessels must agree to certain contractual conditions. These include adoption of minimum manning and wage scales established by the Federal Maritime Board. Recapture of subsidies is possible through a long-term provision of the Act. An operator must retain earned profits in excess of 10 per cent for a ten year accounting period. At the end of the period, he must repay to the government half of all profits in excess of 10 per cent, up to full amount of the subsidy received. (In actual practice this "recapture" is estimated

TABLE 5

OPERATING-DIFFERENTIAL SUBSIDIES JANUARY 1, 1947 TO JUNE 30, 1964
(In millions of dollars)

Calendar year	Subsidies accured	Recapture	Net Subsidies	Payments	Payable June 30, 1964
1947	$ 13.43	$10.22	$ 3.21	$ 3.21	--
1948	28.07	14.50	13.57	13.57	--
1949	44.21	14.52	29.69	29.69	--
1950	57.87	9.24	48.63	48.63	--
1951	71.96	25.79	46.17	46.17	--
1952	89.36	25.74	63.62	63.62	--
1953	106.29	12.94	93.35	93.35	--
1954	107.35	2.84	104.51	104.51	--
1955	115.14	11.94	103.20	103.20	--
1956	128.19	22.44	105.75	105.52	$ .23
1957	147.76	25.36	122.40	117.43	4.97
1958	147.11	6.41	140.70	140.58	.12
1959	159.52	.41	159.09	154.28	4.81
1960	168.06	5.15	162.91	155.77	7.14
1961	171.73	1.99	169.74	159.93	9.81
1962	184.70	4.15	180.55	166.79	13.76
1963	193.53	(1.25)*	194.78	175.91	18.87
1964	99.67	(.24)*	99.91	42.20	57.71
Total	$2,034.07	$193.64	$1,841.77	$1,724.36	$117.41

*Expected recapture.

throughout the period and is retained by the Government by reducing subsidy payments.) The Operating-Differential Subsidies paid to American shipping companies during the calendar years 1947 through 1964 are listed in Table 5. [1]

During these years the actual difference between subsidizable expenses of United States vessels and their foreign competitors amounted to $2 billion. Of this amount, $192 million has been or may be "recaptured" by the Government. Accordingly for the 18 year period the net subsidy actually payable is estimated at $1.8 billion, or an average of $100 million annually. This net subsidy is approximately 24 per cent of the $7.5 billion direct costs of operating the ships of the subsidized operators.

In addition to these subsidies already mentioned, there are numerous other Federal programs designed to assist the American Merchant Marine. The following are among the more significant: [26]

1. Federal insurance of privately financed ship construction loans and mortgages--the Government is authorized to insure construction loans equal to 75 per cent of the construction or reconstruction cost of virtually all types of vessels documented under the laws of the United States.
2. Direct mortgage assistance--the Government may contract for the construction of a ship, and upon completion sell it to the operator for 25 per cent down (or 12½ per cent down if the vessel is of not less than a 14-knot speed and 3,500 gross tons), taking a mortgage on the balance of the purchase

price which would be paid back in regular installments over the statutory life of the vessel. This type of aid is not being used at the present time.

3. Trade-in allowances on purchases of new ships--a maritime operator may trade in to the Government an obsolete vessel in exchange for an allowance of credit on the purchase price of a new ship. This allowance is not paid directly to the owner of the obsolete vessel, but is (a) applied to the cash payment required of the owner if the Government constructs a new vessel for sale to the owner; or (b) paid, for the account of the owner, to the shipbuilder constructing a new vessel under a private financing arrangement. The minimum age at which a vessel may be considered obsolete has been reduced from 17 to 12 years, and for tankers to ten years.

4. Tax benefits--the principal tax benefit specifically allowed ship operators is the exemption from income tax charges of income from reserve funds. Subsidized operators are required to deposit annually in reserve funds all profits after taxes in excess of 10 per cent of "capital necessarily employed in the business". Annual depreciation allowances, based on total acquisition cost, and capital gains from sale or loss of a vessel must also be deposited in a reserve.

5. Cargo preference--half of United States Government-financed cargoes must be transported in United States flag ships. All United States exports purchased with Government loans must be carried in United States-flag vessels, except that waivers may be granted under special circumstances. All cargoes destined exclusively for the use of United States Military Establishments must be carried in United States-flag ships to the extent that such vessels are available at reasonable rates.
6. Reservation of coastwise trade--ever since 1789, it has been the policy of the Federal Government to reserve the United States coastwise trade to ships built in the United States and owned and operated by citizens of the United States. This has been extended to include the noncontiguous parts and possessions of the United States, Alaska, Hawaii, and Puerto Rico.
7. Loans at low rates of interest for construction of merchant vessels--no new commitments for direct loans for construction of merchant vessels have been made since 1956, and none are anticipated for 1965.
8. Reduced charter hire of Government-owned vessels, so as to encourage private operations.
9. Research and development of new types of vessels.
10. Payment for national defense features incorporated

in vessels built either with or without subsidy.

These many and varied legislative provisions of government support of merchant marine have been most instrumental in showing our flag in numerous foreign ports and keeping our ships on the high seas. Undoubtedly there is room for improvement in this legislative program with many proposals already under investigation. It can be strongly stated that it is to the credit of the United States Government and not to the shipping industry itself that we have an American Merchant Marine whose fleet is currently second to none.

CHAPTER V

PROBLEMS AND POLICIES

It must be assumed that until existing world tensions improve, we are continually faced with a constant war threat. However, the most serious threat facing the United States now, and in the future, is the political-economic war waged by the Sino-Soviet bloc. [12] Continuation of this cold war will occasionally escalate into limited aggressions and localized "hot" wars. It can be further assumed that an all out war need for ships will probably not develop, since scientific experts and top military strategists claim the United States arsenal holds more than eight times the necessary weapons to destroy any potential enemy. [12] It is of primary importance however, that the United States Merchant Marine be adequately prepared to act immediately and effectively in support of our naval and military forces in case of any emergency or political-economic struggle.

> The ability to meet our anticipated military and civilian economy emergency needs is dependent to a large degree on the ready availability of active, privately-owned merchant ships employed in gainful ocean commerce. The degree of promptness with which sealift responds in an emergency will have an important impact on the outcome. Time may not permit the activation of many idle ships. A serious war crisis could well become a race against time to evacuate nationals, to redeploy troops and equipment, or to augment and resupply existing forces overseas. To be prepared for such situations, we must put first reliance on the ready availability of active modern merchant ships of all types. [9]

As has been seen in World Wars I and II, we cannot depend upon our allies or other maritime nations for our shipping requirements. This has also applied during times of peace, in cases, such as in Cuba and Viet Nam, where our allies are not in accord with our foreign policies.

Therefore, we cannot place complete dependence on our allies' merchant fleets for conducting our international commerce. The only feasible policy for the United States to follow is one of self-sufficiency in ocean transportation. Such a program can be pursued by replacing and building a modern fleet that will be available to promptly meet initial emergency sealift requirements, and also enhance our political prestige through world trade.

A speech given by Maritime Administrator, Nicholas Johnson, on the United States maritime industry was reported in a recent newspaper article. In it, he verified the declining condition and present status of our merchant fleet. Mr. Johnson asserted:

> . . . although the subsidy program has provided about 315 "fast and modern" ships, hundreds of other ships in the fleet are slow and deteriorating. For example, he said, of the 100 unsubsidized ships in regular-route service, "all but five date from World War II" and all 100 will "disappear from the Merchant Marine over the next five to 10 years." Only seven of the 130 ships in the tramp fleet have been built since World War II. If these 230 regular-route and tramp ships were added to the subsidy list, Mr. Johnson said, the additional cost in Government construction subsidies would be about $1 billion.[1]

Although a large quantity of ships is a major objective, quality must also be considered . At present the military has a requirement for vessels that have special characteristics, in some instances quite different from those found in our present conventional-type ships. The two main deficiencies are in the area of roll-on, roll-off ships for carrying large cargoes of military vehicles; and in beaching-type vessels capable of operating where no ports exist. The present commercial trend is toward containerization, and vessels designed for

[1] News item in the Wall Street Journal, February 10, 1965.

this purpose could probably be easily adapted to military needs for vehicle carriers. Containerization offers one of the most encouraging prospects of reduced cargo costs, but there remain many problems to solve, particularly in the area of foreign trade operations. There is a need for international agreement on standards before large capital investments are made to provide containers, specialized ships, and special port facilities for a unit load system in foreign trade operations. There is little commercial interest at present in beaching-type ships, except as currently used along the northern Irish coast and in certain locations along the west coast of Africa.

With all the technological successes attributable to our economic system, it is well within our means to design and build vessels of higher speed with the characteristics necessary to peaceful trade and ready to be used in any type of war. The two requirements are not so different that they could not be compromised into a commercially-competitive fleet. Unfortunately, shipbuilding and ship operating are not readily adaptable to the highly productive techniques that have come to be associated with American industry in general; and the costs of building such vessels have, in the past, been excessive. In the last 20 years it has been cheaper to provide government subsidies and operate with the excess of vessels left over from World War II, than become involved in an expensive shipbuilding program larger than absolutely necessary to meet immediate needs. With block obsolescence facing our fleet, and the expenditures for subsidies mounting--about $380 million in this current fiscal year--drastic action must be taken and without delay if our merchant shipping fleet is to remain competitive.

The provisions in the Merchant Marine Act of 1936 to provide for

replacement of current tonnage, are not adequate. The Merchant Marine Act, as even its staunchest advocates now concede, has failed of its purpose. After 25 years, like most ships, it is hopelessly obsolete. Surely the time has come to replace it with something better.

> The subsidy system offers little incentive toward self-sufficiency on the part of the shipping industry, and there is no definite and adequate plan to ensure that our merchant marine will meet the threats of Communism. Continuation of current subsidy policy "would aid in the construction and operation of approximately 450 new ships over the next 20 years." [19]

Nicholas Johnson asserted "that the 1954 Cargo Preference Law has been a miserable failure".[2] He stated that 15 other countries in retaliation have adopted similar policies of their own that tend to cut United States ships out of the trade. Moreover, the benefits haven't spurred tramp and other operators to modernize their fleets.

The present administration of the subsidy system is an obstacle to the progress of the American Merchant Marine. Military requirements demanding high-speed capabilities for national-defense features are not at present wholly consistent with commercial interests of economy in administering construction subsidies. No better evidence of this can be shown than in the fact that many of the Mariner-class vessels were put into the reserve fleets as soon as they had been operated only long enough to be sure the contractor had fulfilled his construction-contract commitments. Even then, they had to be operated for the government's account. Many feel that the subsidies presently create inconsistent aims for labor, business, and government in the maritime industry. The operator is encouraged to overspecify his construction

[2] Ibid.

needs, knowing that half of the cost will be paid by the government. By the same token, he overemphasizes economy in unsubsidized operating costs and cares too little about subsidized costs. Studies have shown that unsubsidized operators show strong incentives to cost reduction, such as the use of automation, whereas foreign and subsidized operators are less motivated in this direction. [11]

There is though, a growing movement favoring subsidy reduction and increased emphasis on developing methods and devices leading to a shipping industry which provides maximum productivity through more efficient use of its current high-cost labor. It is felt that

> . . . a vigorous program of research can point the way to the development of such an efficient fleet, one able to face world competition with substantially less subsidy assistance. [19]

Getting our merchant marine back on a competitive status with other fleets of the world should be the government's goal in its assistance program--not merely the maintenance of a minimum amount of shipping to meet our national needs as now provided for through heavy subsidization.

A fleet of efficient, modern ships made competitive in world trade through advanced scientific and technological progress would be sufficient to provide us with a "first arm of offense" in the cold war, and, have many of the aforementioned special military characteristics already built in for possible use in a hot war. A large merchant fleet that is normally engaged in active trade throughout a peaceful world is likely to be much more versatile in carrying out its wartime duties than one limited to special or only so-called "essential trade routes." Bringing automation, systems analysis, and other new developments into an industry, long known for its high

resistance to change, presents many problems; and such a move would have to result in a compromise by labor, management, and government interests; but many feel this effort to free the merchant marine from the subsidy is a challenge the industry can meet.

Through electronic computers capable of manipulating numbers in microseconds, large numbers of alternative choices can be explored quickly and accurately. Variables, such as number of ships, cargo loadings, wage rates, fuel costs, freight charges, etc., can be examined in various combinations in order to determine the most efficient arrangement of factors.

The pioneering work in this technique was done by Matson Navigation Company of San Francisco. Since 1958, they have used mathematical simulation by computers to explore their particular operating problems. With the mathematical model they can by use of high-speed simulation, investigate and examine all the variables, and offer management more select choices for decision making. The Matson Navigation Company model, can for example, look in detail at the operation of approximately 20 ships and five port complexes, simulating for evaluation a full year of operation in about one and one-half hours of computer time. The computer in use at Matson is the IBM 704.

Maritime Administration activity in this field dates from 1960, when a contract was placed with Arthur D. Little and George G. Sharp Companies to use operations research in studying various aspects of ship operations. The Maritime Administration's mathematical model is able to study as many as 75 ships and 20 port complexes with a time of simulation slightly longer than the Matson model. It is anticipated that this facility will be available to the shipping

companies for their assistance in improving overall efficiency of operations.

The mathematical model is a method of depicting a real life situation on a digital computer, in order to check reaction to proposed changes or remissions to the real life situation, in instances where it is too costly or impractical to physically implement such changes.

This method offers great promise in investigating typical problem areas such as subsidy determination, vessel replacements, trade route studies, evaluation of competition, trade forecasting, and mobilization planning. In addition, it can be applied to ship design processes, wherein optimum combinations of design coefficients, dimensions, displacements, speed and power, can be investigated rapidly. Economic criteria can be used to approximate construction costs, daily operating costs, and capital recovery factors. These can be programmed into computers so that a complete ship design analysis can be developed in minutes of computer time.

Long-range planning is certainly essential to maintain our merchant fleet at a high level of preparedness for any eventuality, but there are also problems requiring attention. Probably the most urgent is the present precarious status of the "flag of convenience" fleet, also termed "flag of necessity" by many United States owners.

The initation of these fleets took place prior to World War II when many large United States corporations expanded into the ocean-transportation field through foreign-registered ships to protect their overseas pipelines of raw materials. Government policy in the 1939-1940 era looked upon this as a means of supplying our allies at a time when, as a nation, we were pledged to neutrality. After the war, many

shipowners again resorted to foreign registry, this time to beat the high wage rates or avoid government regulations. This move was made by many foreign, as well as American, shipowners. Most of these vessels are registered under the flags of Panama, Liberia and Honduras.

The operation of ships by American owners under the "flags of convenience" has long been criticized by foreign shipping interests and certain European governments for economic reasons relative to competitive ocean trade. Their major objective is to drive the "flags of convenience" off the high seas. Their motivation is simple--if registry under these flags cannot be continued, the ships will have to be transferred to other flags, and they feel the bulk of the tonnage would be transferred to the flags of the European maritime nations. Such transfers would increase the tax revenues of these countries, and at the same time eliminate competition of what they claim to be tax-free shipping. United States policy has been to make no commitments for or against proposals by foreign nations to change our existing policy. United States owners of vessels under Panamanian, Liberian or Honduran registry contend that unless government policy is forthcoming in support of registry under "flags of convenience", they may well have to sell their vessels or put them under the flag of one of the stronger traditional Western European maritime nations. United States maritime labor is also active in exerting pressure against owners of these vessels, and many American-ship owners who have split their fleet operations into the above mentioned foreign registries and also United States registry, are particularly susceptible to this pressure.[9]

Presently, the trend is not favorable to ensure continued American control of this important segment of the world's merchant fleets; and if it continues to drive American-owned ships away from effective United States Government control, the only apparent choices are to either increase the present subsidized size of our own fleet as an inducement for them to return to the American flag or resort to inter-governmental agreements to assure that this shipping would revert to our control in event of national emergency.

Management relations with maritime unions, especially the stevedores and teamsters, have long shown a need for special attention on the part of the government; and there is little hope that the Congressional investigations and "clean-up the waterfront" committees have done anything more than scratch the surface of this continuing problem. Labor relations should provide a situation in which both labor and management can examine common problems in an atmosphere of mutual confidence and understanding. One of the principal difficulties with the United States Merchant Marine policy today is that such a situation does not exist. This has, in part, created four problem areas which exist today in this facet of the United States Merchant Marine operations. They are as follows:

1. High wages which are non-competitive internationally.
2. Instability of United States Flag Service due to frequent strikes or other forms of harassment.
3. Apparent lack of understanding on the part of United States Merchant Marine labor officials concerning international law.
4. A rapidly deteriorating "image" of our United States

Merchant Marine, and continuing losses in the area of Congressional support of the merchant marine.

Maritime labor, through effective labor relations with ship operators, should develop opportunities and conclude realistic settlements and solutions of common problems, to avoid future losses.

Much of the legislation now in force is adequate to provide for many of the problems facing our merchant marine but is being abused. A case in point is the practice of the Department of Agriculture, whereby it transports barely 50 per cent of its cargoes under the American flag--just enough to meet the minimum established by cargo-preference legislation. The State Department would also like to see the Cargo Preference Act eliminated to aid international relations.

There are many other related current problems facing our shipping industry; and, just as the Merchant Marine Act of 1936 helped bring about a solution to many of the problems of its day, perhaps a new approach is needed today.

Currently, the Maritime Commission is advocating the following major revisions:

1. Rejection of future subsidized construction of any additional United States flag passenger liners.
2. Elimination of cargo-ship construction subsidies.
3. Gradual reduction of the indirect subsidy provided by the 1954 Cargo Preference Law.
4. Substitution of a direct operating subsidy to all ships instead of the present cargo preference benefits. This will increase route competition among companies already operating under operating subsidies.

5. Modification of current regulations which require return of earnings in excess of 10 per cent to the Government in order to provide incentive to the ship operator and to encourage automation and other cost saving procedures.[3]

[3] Ibid.

CHAPTER VI

CONCLUSION

A strong, effective peacetime merchant marine that will actively support our foreign commerce and be available to act as a naval auxiliary in time of national emergency continues to be essential to our national economy and security. Experience in two World Wars and the Korean conflict has demonstrated that the United States must depend on its own merchant fleet and shipbuilding and repair industries for ocean transportation. After times of conflict however, and the crisis is past, the merchant marine

> . . . is quite apt to be the first [element of defense] to meet the axe of dollar-saving and the least likely to maintain an emergency readiness strength. [6]

A double dividend is realized for the single expenditure of funds appropriated for the support of the merchant marine. First, the United States Merchant Marine can in time of peace further United States national objectives by "showing the flag", thereby gaining political prestige and, through delivery of the products of our economy, preserve America's place in world markets. Second, the merchant marine developed and maintained in peace becomes readily available in time of war to cope with emergency sea lift requirements. However it is the efficient use of funds appropriated to assist this industry that will determine whether or not the American flag remains on the high seas, and not how the policies are stated in favor of our merchant fleet.

The need for a strong merchant fleet in the present cold war and for potential use in a limited or all-out war is all too clear.

The dual function of the merchant marine, as a service

> industry in peace and an element of combat in war, has led to confusion in legislation and administration in the past. Surely the position of the United States in world affairs dictates that national strength and security must be maintained in a high degree of readiness and efficiency at all times. [17]

Government assistance in the past, has come primarily through direct financial subsidization; and, althoughthis was brought into the open and recognized as such under the Merchant Marine Act of 1936, the basic approach has never changed since enactment of the first mail-subsidy laws. Today this aid is not sufficient to maintain the large and modern merchant marine the country needs in its policital-economic struggle with Communism, and time is running out if we are to replace our merchant fleet which is rapidly approaching obsolescence. Other forms of aid such as the cargo-preference, and other discriminatory practices resorted to by the government have undoubtedly boosted the percentage of American trade carried on United States-flag ships; but the efficiency and economy of these forms of assistance do not make the merchant marine any more self-supporting, nor do such practices add to the friendly relations we would like to enjoy with other maritime nations, especially those associated with NATO. Certain federal assistance that has been provided to the shipping industry through the Maritime Administration activities has been, however, aimed at helping the industry help itself. This has taken the form of ship-design studies, construction of prototype vessels such as the NS SAVANNAH, the 60 ton hydro-foil vessel HS DENNISON, presently under evaluation by the Maritime Commission, and also education and training of both licensed and unlicensed seagoing personnel. The government expenditure for the maritime training programs amounted to more than $3.6 million for the

past fiscal year. [1]

In recent years, the Maritime Administration has been spending less than $8 million a year--about one-and-a-half per cent of its total budget--on research. [1] In an attempt to better organize its research activities, the Maritime Administration contracted with the National Academy of Sciences-National Research Council to study research and development possibilities in the shipping industry, and determine objectives, make suggestions, and advise on methods the Administration could use as a basis for carrying out its functions along these lines. The committee formed to study the problem concluded that:

> The United States Merchant Marine would directly benefit from a greatly enlarged program of research and development which both Government and industry should support. [19]

The committees also felt the research appropriations--exclusive of nuclear and prototype ship funds--should be no less than $10 million annually at least until 1970. They concluded that:

> The subsidy program which maintains merchant vessels under United States control should be continued until such time as the fleet can be made competitive in international trade. [19]

Even if research and development efforts could not be financed to this extent through current appropriations, it would be wise to divert subsidy funds to this purpose--the return for the investment is much greater in the long run. At present, research and development seem the most practical and least costly courses the government could pursue in quest of a truly competitive fleet.

There is another area which could bring rewarding results if government took a more active part in it. This is in the shipping industry's labor-management relations field. The task would be to help

the two segments of the industry see the benefits to be derived from peaceful cooperation in building up the American Merchant Marine, and working together rather than against each other, as has so often been the case. In every instance of a strike or labor trouble, it has been the economy and the shipping industry itself that has suffered. If the American Merchant Marine could have been relied upon, there might have been little need for the formation of such an organization as MSTS.

As in the Korean conflict, MSTS stands ready to provide the nucleus of an emergency fleet; and nothing should be allowed to hinder or impede its capability to carry this mission. To the maximum extent practicable MSTS should have the most modern and efficient vessels our economy can afford. It has proven its worth in both peace and war and is considered an efficient business organization in the Department of Defense.

The United States needs control of a powerful force of modern, efficient merchant vessels to:

1. Protect American interests from excessive ocean-transportation rates.
2. Act as a "Fourth Arm of Defense" in event of armed conflict.
3. Provide a "First Arm of Offense" in the present cold war.

The government's program of support for the American Merchant Marine can best be achieved through policies designed to help the shipping industry by:

1. Emphasizing government assistance on research and development projects.
2. Increasing efficiency incentives as prerequisites

to subsidies.

3. Aiding improvement of labor-management relations in the maritime industry.

4. Recognizing the "flags of convenience" fleets as a necessity for national defense.

These policies if carried out, will assist the shipping industry to maintain a viable Merchant Marine.

BIBLIOGRAPHY

1. Annual Report of the Federal Maritime Board and Maritime Administration 1964. U.S. Department of Commerce. Washington, D.C., 1964.

2. Braynard, Frank O. "The New Savannah." United States Naval Institute Proceedings. February, 1960.

3. Bross, Steward R. Ocean Shipping. Cambridge, Maryland: Cornell Maritime Press, 1956.

4. Campbell, E.G. "Mahan's Message on the Merchant Marine." United States Naval Institute Proceedings. May, 1960.

5. Casey, Ralph E. The Maritime Industry and Its Problems, an address before the Transportation Research Study Group, National Academy of Sciences, National Research Council, Woods Hole, Massachusetts, August 5, 1960.

6. Dyer, George C. Naval Logistics. Annapolis, Maryland: United States Naval Institute, 1960.

7. Eccles, Henry E. Logistics in the National Defense. Harrisburg, Pennsylvania: The Stackpole Company, 1959.

8. Economics of Nuclear and Conventional Merchant Ships. American-Standard, Atomic Energy Division. Mountain View, California: 1958.

9. Fair, Marvin L. Merchant Marine Policy. Cambridge, Maryland: Cornell Maritime Press Inc., 1963.

10. Ferguson, Allen R. and others. The Economic Value of the United States Merchant Marine. Evanston, Illinois: The Transportation Center at Northwestern University, 1961.

11. Gorter, Wytze. United States Shipping Policy. New York, N.Y., Norton & Co., 1959.

12. Hitch, Charles J. and Roland N. McKean. The Economics of Defense in the Nuclear Age. Santa Monica, California: The Rand Corp., 1960.

13. Iron Men and Atomic Ships, Nuclear Merchant Marine. Business Week, June 8, 1963, pp 114-116.

14. Kassell, Bernard M. "The Soviet Merchant Marine". United States Naval Institute Proceedings. March, 1964.

15. Land, Emory S. "Should We Scrap the Remnants of Our World War II Merchant Marine Reserve Fleet?" United States Naval Institute Proceedings. August, 1960.

16. Locklin, Phillip D. Economics of Transportation. Homewood, Illinois: Irwin, 1960.

17. McDowell, Carl E. and Helen M. Gibbs. Ocean Transportation. New York: McGraw-Hill, 1954.

18. Merchant Fleets of the World. Maritime Administration, U.S. Department of Commerce, Washington, D.C. December 31, 1963.

19. Proposed Program for Maritime Administration Research. National Academy of Sciences--National Research Council. Washington: 1960.

20. Remedy for a Sick Industry. U.S. News & World Report. July 15, 1963.

21. Report on Transportation. Commission of Organization of the Executive Branch of the Government. Washington: Government Printing Office, 1955.

22. Schade, Arnold F. "The Merchant Marine and National Security." United States Naval Institute Proceedings. January, 1961.

23. Seafaring Premium Pay. Maritime Administration, U.S. Department of Commerce, Washington, D.C., June, 1964.

24. Statistical Abstract of the United States 1964. U.S. Department of Commerce. Washington: Government Printing Office, 1964.

25. Statistical Analysis of the Worlds Merchant Fleets. Maritime Administration, U.S. Department of Commerce, Washington, D.C., December 31, 1963.

26. The American Merchant Marine and Federal Assistance Programs. Maritime Administration, U.S. Department of Commerce. Washington: Government Printing Office, 1960.

27. Thurman, Solon B. "American Shipping Problems." Marine Journal, December, 1960.

28. United States Merchant Marine History. Maritime Administration, U.S. Department of Commerce, Washington: Government Printing Office, 1962.